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09/631,312	08/03/2000	Brian D. Kruse	10201US01	9288

7590 05/20/2005  
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EXAMINER

CHUNG, DANIEL J

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/631,312

Applicant(s)

KRUSE ET AL.

Examiner

Daniel J. Chung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-12,14-37 and 39-63 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,14-32,39-52 and 59-63 is/are rejected.
- 7) ☒ Claim(s) 8-12,33-37 and 53-58 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Claims 1,3-12,14-37 and 39-63 are presented for examination. This office action is in response to the amendment filed on 11-15-2004.

### ***Drawings***

This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,3-7,14-32,39-52 and 59-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hilliard et al (USPAP, US 2002/0080168) in view of Holmes (6,686,953).

Regarding claim 1, Hilliard et al discloses that the claimed feature of a method comprising: obtaining information ["the color display characteristic of display"] characterizing the color response of a display device associated with a client residing on

a computer network by guiding the client through a color profiling process that profiles the color response of the display device, wherein the color profiling process includes [estimating the gray balance of the display device] (See Fig 3A-3B, [41-42], [84-109]); modifying a color image based on the information to improve the accuracy of the color image when displayed on the display device; and delivering the modified color image [“color corrected image”] to the client via the computer network for display on the display device. (See Abstract, Fig 1-8, Fig 20-21, [38]-[42], [61]-[62], [116]-[118], [126]-[128], [133]-[136])

Hilliard et al does not explicitly disclose that “the color profiling process includes estimating the gray balance of the display device.” However, such limitation [‘color correcting/profiling process includes the step of estimating grey balance of an image’] is inherently shown in the teaching of Holmes. [i.e. ‘the provided visual target and sub-targets in gray balance methods to sense, control and verify the correct gray balance of the entire tone scale of the display’, as gray balance for the display device can be estimated by selecting one of these target and sub-targets, and/or the step of estimating gray balance is necessarily required to construct these visual target and sub-targets] (See Abstract, steps 400-500 in Fig 7, step 1460 in Fig 8, ‘target and sub-targets’ in Fig 9-12 and 23, col 5 line 14-67, col 6 line 15-35, col 14 line 65-col 15 line 22, col 19 line 23-54, col 20 line 17-26) It would have been obvious to one skilled in the art to incorporate the teaching of Holmes into the teaching of Hilliard et al, in order to provide increased precision of gray balance without complicated manner of user’s control of

gray balance adjustment, thereby effectively achieving desired/corrected output color rendition with the imaging device, as such improvement [i.e. color correcting/profiling process using of the estimated gray balance] is also advantageously desirable in the teaching of Hilliard et al for providing properly/accurately corrected elements [i.e. gamma, gray] of colored images in the displaying device with easy manner. (See [42], [113], [154], [155] in Hilliard et al)

Regarding claim 3, Hilliard et al discloses that guiding the client through the color profiling process by delivering a series of instructional web pages to the client. (See [117]-[118], [125]-[128], [133], [136])

Regarding claim 4, Hilliard et al discloses that the color profiling process includes estimating a gamma for the color response of the display device. (See [113]-[114], [151]-[155], [174]; See Abstract, steps 400-500 in Fig 7, step 1460 in Fig 8, 'target and sub-targets' in Fig 9-12 and 23, col 5 line 14-67, col 6 line 15-35, col 14 line 65-col 15 line 22, col 19 line 23-54, col 20 line 17-26 in Holmes)

Regarding claim 5, Hilliard et al discloses that the color profiling process includes estimating a gamma for the color response of each of the red, green and blue color channels associated with the display device. (See [113]-[114], [151]-[155], [174]; Also See Abstract, steps 400-500 in Fig 7, step 1460 in Fig 8, 'target and sub-targets' in Fig

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9-12 and 23, col 5 line 14-67, col 6 line 15-35, col 14 line 65-col 15 line 22, col 19 line 23-54, col 20 line 17-26 in Holmes)

Regarding claims 6-7, Hilliard et al discloses that the color profiling process includes: estimating the black point of the display device; estimating a coarse gamma for the display device; estimating a fine gamma for the display device based in part on the coarse gamma; and generating a color profile based on the black point, the coarse gamma, the fine gamma, and the gray balance. (See [113]-[114], [151]-[155]) Although Hilliard et al does not discloses two groups of gamma [i.e. the coarse gamma, the fine gamma] for the display device, in an analogous art, separating the gamma or any other color parameters into two different groups based on the level of accuracy [i.e. coarse, fine], thereby having higher or fine color parameters [i.e. gamma] is well known in the art to one of ordinary skilled in the art, in order to provide more ensured output images to user. [i.e. 'method one and method two' in Holmes (6,686,953), which provided in the newly cited reference herewith]

Regarding claim 14, Hilliard et al discloses that guiding the client through the color profiling process by delivering a series of instructional web pages to the client; obtaining the information by generating a web cookie based on results of the color profiling process; and transmitting the web cookie to a remote server in the computer network. (See [53]-[56], [64]-[65], [73], [117]-[118], [125]-[128], [133], [136])

Regarding claim 15, Hilliard et al discloses that the remote server modifies the color image based on the information. (See [34], [39], [53], [61]-[65], [128]-[136])

Regarding claim 16, Hilliard et al discloses that the remote server delivers the modified color image to the client. (See [34], [39], [53], [61]-[65], [128]-[136])

Regarding claim 17, Hilliard et al discloses that transmitting the information to a remote server in the computer network, the remote server modifying the color images based on the information. (See [34], [39], [53], [61]-[65], [128]-[136])

Regarding claim 18, Hilliard et al discloses that transmitting the information to a plurality of remote servers in the computer network, and modifying a plurality of color images based on the information, wherein each of the remote servers modifies and delivers at least one of the color images to the client. (See [34], [39], [53], [61]-[65], [128]-[136])

Regarding claim 19, Hilliard et al discloses that obtaining the information by obtaining information characterizing the color responses of a plurality of display devices associated with a plurality of clients residing on the computer network. (See [34], [39], [53], [61]-[65], [128]-[136])

Regarding claim 20, Hilliard et al discloses that the color image forms part of content received by the client from a remote server. (See [117]-[118], [125]-[128], [133], [136])

Regarding claim 21, Hilliard et al discloses that the computer network is the World Wide Web, and the color image forms part of a web page received by the client from a web server residing on the computer network. (See [117]-[118], [125]-[128], [133], [136])

Regarding claim 22, Hilliard et al discloses that the color image includes a plurality of color images stored on image servers residing on the computer network, and the color images form parts of web pages received by the client from web servers residing on the computer network, the image servers and web servers being distinct from one another. (See Fig 1, Fig 3, Fig 11)

Regarding claim 23, Hilliard et al discloses that modifying the color images before the delivery of the color images to the client. (See [34], [39], [53], [61]-[65], [128]-[136])

Regarding claim 24, Hilliard et al discloses that transmitting a web page from a web server to the client, wherein the web page includes an image tag identifying the color image on a color image server residing on the computer network; transmitting the



information as part of a web cookie to the color image server, wherein the color image server modifies the color image based on the information; and transmitting the color image from the color image server to the client. (See [53]-[56], [64]-[65], [73], [117]-[118], [125]-[128], [133], [136])

Regarding claim 25, Hilliard et al discloses that transmitting a first web page from a color profile server to the client, the web page guiding the client through a color profiling process to obtain the information; transmitting a second web page from a web server to the client, wherein the web page includes an image tag identifying the color image on a color image server residing on the network; transmitting the information as part of a web cookie to the color image server, wherein the color image server modifies the color image based on the information; and transmitting the color image from color image serve to the client. (See [53]-[56], [64]-[65], [73], [117]-[118], [125]-[128], [133], [136])

Regarding claim 26, refer to the discussion for the claim 1 hereinabove, Hilliard et al discloses that the claimed feature of a system comprising: a web server residing on a computer network, the web server transmitting web pages to remote clients residing on the computer network; a color image server residing on the computer network, the color image server transmitting color images referenced by the web pages to the clients for display on display devices associated with the clients; a color profile server residing on the computer network, the color profile server guiding the clients through a color

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profiling process to obtain information characterizing the color responses of the display devices associated with the clients, wherein the color profiling process includes estimating the gray balance of the display device; and one or more color correction modules that modify the color images transmitted by the color image server based on the information to improve the accuracy of the color images when displayed on the respective display device. (See Abstract, Fig 1-8, Fig 20-21, [38]-[42], [61]-[62], [116]-[118], [126]-[128], [133]-[136])

Regarding claim 27, Hilliard et al discloses that the one or more color correction modules include a plurality of color correction modules, each of the color correction modules being resident with one of the color image servers on the network. (See Abstract, Fig 1-8, Fig 20-21)

Regarding claims 28-32, claims 28-32 are similar in scope to the claims 3-7, and thus the rejections to claims 3-7 hereinabove are also applicable to claims 28-32.

Regarding claims 39-43, claims 39-43 are similar in scope to the claims 14-17, 21 and 27, and thus the rejections to claims 14-17, 21 and 27 hereinabove are also applicable to claims 39-43.

Regarding claim 44, claim 44 is similar in scope to the claim 1, and thus the rejection to claim 1 hereinabove is also applicable to claim 44.

Regarding claim 45, Hilliard et al discloses that obtaining the information by guiding the client through a color profiling process that profiles the color response of the display device, the color profiling process including delivery of a series of interactive, instructional pages to the client, wherein completion of the color profiling process requires no more than four clicks with a pointing device operated by a user associated with the client. (See [42], [210])

Regarding claim 46, Hilliard et al discloses that the cookie includes a profiler cookie written to the client by a first server that obtains the information, and a subscriber cookie written to the client by a color image server that delivers the modified color image. (See [53]-[56], [64]-[65], [73], [117]-[118], [125]-[128], [133], [136])

Regarding claim 47, Hilliard et al discloses that transferring at least some of the contents of the profiler cookie to the color image server, whereby the color image server writes the subscriber cookie to the client, the subscriber cookie being thereafter transferred to the color image server when the client requests delivery of images from the color image server. (See [53]-[56], [64]-[65], [73], [117]-[118], [125]-[128], [133], [136])

Regarding claims 48-52, claims 48-52 are similar in scope to the claims 26,32 and 45-47, and thus the rejections to claims 26,32 and 45-47 hereinabove are also applicable to claims 48-52.

Regarding claim 59, Hilliard et al discloses that using the coarse gamma as a starting point for estimating the fine gamma, and using the fine gamma as a starting point for estimating the gray balance. (See [113]-[114], [151]-[155], [186]-[187])

Regarding claims 60 and 62, claims 60 and 62 are similar in scope to the claim 1, and thus the rejection to claim 1 hereinabove is also applicable to claims 60 and 62.

Regarding claim 61, Hilliard et al discloses that the program code is contained both in physical data storage media and signals transmitted between the client computer and other resource on the computer network. (See Fig 1, Fig 3-5, Fig 11)

Regarding claim 63, claim 63 is similar in scope to the claim 61, and thus the rejection to claim 61 hereinabove is also applicable to claim 63.

### ***Allowable Subject Matter***

Claims 8-12,33-37 and 53-58 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments/Amendments***

Applicant's arguments with respect to claims 1 and 3-64 have been considered but are moot in view of the new ground(s) of rejection. Specifically, in response to the applicant's argument that the cited references do not disclose that "the color profiling process includes estimating the gray balance of the display device." However, the newly submitted reference (Holmes), in an analogous art, discloses the step of 'estimating grey balance of an image' [i.e. the provided visual target and sub-targets in gray balance methods to sense, control and verify the correct gray balance of the entire tone scale of the display', as gray balance for the display device can be estimated by selecting one of these target and sub-targets, and/or the step of estimating gray balance is necessarily required to construct these visual target and sub-targets] (See Abstract, steps 400-500 in Fig 7, step 1460 in Fig 8, 'target and sub-targets' in Fig 9-12 and 23, col 5 line 14-67, col 6 line 15-35, col 14 line 65-col 15 line 22, col 19 line 23-54, col 20 line 17-26) See the rejection hereinabove.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Chung whose telephone number is (703) 306-3419. He can normally be reached Monday-Thursday and alternate Fridays from 7:30am- 5:00pm. If attempts to reach the examiner by

telephone are unsuccessful, the examiner's supervisor, Michael, Razavi, can be reached at (703) 305-4713.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
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**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

**Hand-delivered responses should be brought to Crystal Park II, 2121  
Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).**

**Any inquiry of a general nature or relating to the status of this application  
or proceeding should be directed to the Technology Center 2600 Customer  
Service Office whose telephone number is (703) 306-0377.**

djc  
May 16, 2005



**MICHAEL RAZAVI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600**